

Date: Tuesday, 1/3/2006 4:14:47 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SADDLE BILLET
Job Number : 25344	
Estimate Number : 10032	
P.O. Number : N/A	Part Number : D6101001
This Issue : 1/3/2006 S.O. No. : N/A	Drawing Number : D6101 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : MACHINED PARTS	Drawing Revision : A
Previous Run : 25343	Material : N/A
Written By : <u>SEE COMMENT BELOW</u>	Due Date : 7/15/2006 Qty: 100 Um: Each
Checked & Approved By : <u>m</u>	
Comment : Ext. B: 01.05.04 New Issue EC	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 00000339

SP 06/01/04

a) Description: Alluminum billet

b) 6.00" x 6.250" x 2.00" thick

c) Tolerance on length are +0.025"/-0.000" AE +/-0.008"

d) Grain direction along 6.00" length

e) Material: 7075-T7351 (QQ-A-250/12)

f) Material certification required

2.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

PD 6/7/14 (100)

3.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D

BC 06.07.17 100

4.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: CMC

BC 06.07.17 100

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/07/24
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 1/3/2006 4:14:47 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET

Job Number: 25344

Part Number: D6101001

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL
Inspection Level 21

06.07.17

Job Completion



U 06.07.17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

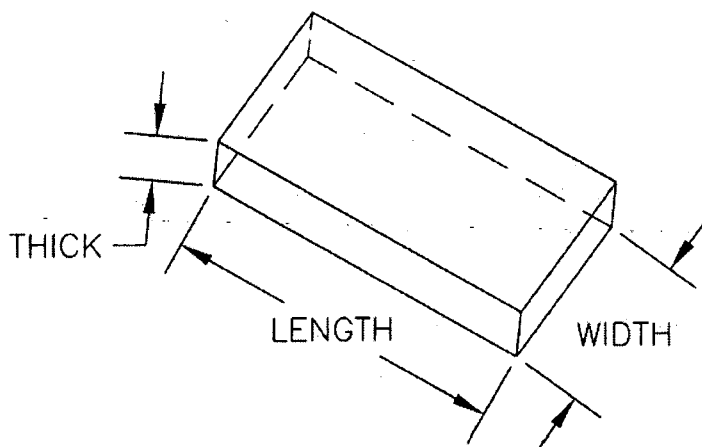
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>JS</i>	DRAWING NO. D6101	Rev. A SHEET 1 OF 1
DATE 01.03.30		TITLE SADDLE BILLET, 7075	SCALE NTS
A	01.03.30	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.04.23 *CP*



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO APPROVAL

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x 10, WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length

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1 533680 604779 01

A.M. CASTLE & Co. (Canada) Inc.

533680

REQUISITION CLIENT-CUSTOMER REQUISITION NO.

NO. COM. CLIENT-CUST. ORD. NO.

COMPT-ACCT.

VEND. SLS

TERR.

EXPEDIE PAR-SHIP VIA

PO 00000339

91037 200 40 CABANO (PPD)

TEUR-PURCHASING AGENT

TELEPHONE

H/C TAXE NO. COM ORD

REGION LIVRAISON-DEL ZONE

F.A.B.-F.O.B.

BILL

NO. FEVILLE/EMBALLAGE-B/L NUMBER

INDA LACELLE

613 632-3336

9 0

1 C/C

PREPAID

A105424

E-A SHIP TO:

VENDU A-SOLD TO:

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY

ON K6A 1K7

INFORMATION CREDIT CREDIT INFORMATION

R2C SEE FRANCE STATUS 9

ROUTE

01-NL-04/27

30-NL-05/08

31-NL-07/18

INSTRUCTIONS LIVRAISON-DELIVERY

VQ-B27602

INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)

INSTRUCTIONS LIVRAISON (CONT.)-DELIVERY (CONT'D.)

REQUISITION - ITEM 1

.0000 PLATE 7075-T7351 ALUM 6.25" X 6.00"

BLACK W/RED STRIPE

CERTIFICATE OF CONFORMANCE

A.M. Castle & Co. certifies that the material(s) supplied under this document will meet and conform to the specifications of the product(s) described hereon.

A.M. Castle & Co. (Canada) Inc.

WEIGHT FOR SHIPPING PURPOSES ONLY. SEE INVOICES FOR ACCURATE BILLING WEIGHT. PLEASE SIGN AND DATE DRIVER'S COPY FOR RECEIPT OF MATERIAL AND, IF CHECKED, TEST REPORTS.

INSTRUCTIONS

TOL: +.025" / -.000"

SKID: TYPE 3A

GRAIN TO RUN ALONG 6"

THICKNESS TOL: +.030" / -.000"

ATTN MARTINE: PAS AVANT 13 JUIL

COULÉE INFO-HEAT INFO

QTE-QTY

347756A9

84

358365AS

14

INSTRUCTIONS (CONT'D.)

100 X 6.25" X 6.00"

QTE/UNITE COM. ORDERED

PCES/PO COM. ORD.

POIDS COM. - WT. ORDERED

100 PCS

PCS

758

BALLOTS-BUNDLES

PCES/PO EXP. SHIP.

POIDS EXP. WT. SHIPPED

1

100

758

FORME-SHAPE

I.A.C.

6857

29.08850F

ENT. WHSE

2

REQUISITION - ITEM 2

TERMS AND CONDITIONS
OF SALESEE DISCLAIMERS AND LIMITATIONS
ON THE REVERSE SIDE

INSTRUCTIONS

1 Box

COULÉE INFO-HEAT INFO

QTE-QTY

INSTRUCTIONS (CONT'D.)

QTE/UNITE COM. ORDERED

PCES/PO COM. ORD.

POIDS COM. - WT. ORDERED

BALLOTS-BUNDLES

PCES/PO EXP. SHIP.

POIDS EXP. WT. SHIPPED

FORME-SHAPE

I.A.C.

ENT. WHSE

REQUISITION - ITEM 3

EXCEPTIONS FOR SHORTAGE OR DAMAGE MUST BE NOTED IN THE DRIVER COPY & CUSTOMER COPY OF THE DELIVERY RECEIPTS & SIGNED BY THE DRIVER & CUSTOMER. COPY OF JCH RECEIPT PROPERLY NOTED MUST BE SUBMITTED WITHIN DAYS WHEN CREDIT IS REQUESTED.

M (LETTRE MOULEE)-NAME (PRINT ONLY)

CU PAR-RECEIVED BY

DATE RECU-
DATE RECEIVED

INSTRUCTIONS

6/2/14

COULÉE INFO-HEAT INFO

QTE-QTY

INSTRUCTIONS (CONT'D.)

QTE/UNITE COM. ORDERED

PCES/PO COM. ORD.

POIDS COM. - WT. ORDERED

BALLOTS-BUNDLES

PCES/PO EXP. SHIP.

POIDS EXP. WT. SHIPPED

FORME-SHAPE

I.A.C.

ENT. WHSE

FEVILLE D'EMBALLAGE - PACKING SLIP
END

SHIP TO: A M CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131
SOLD TO: AM CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
 4064387

CUSTOMER PO NUMBER: 01-82184		WORK PACKAGE:	CUSTOMER PART NUMBER: 6857		SHIP RUN/LOAD ID: 100649/14	GOV'T CONTRACT NUMBER: A97075-60
KAISER ORDER NO: 1033815	LINE ITEM: 1	SHIP DATE: 13-APR-2006	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	
WEIGHT SHIPPED: 1436 LB	QUANTITY: 1 PCS EST.	B/L NUMBER: 208073	GUAGE: 2.0000 IN	WIDTH: 48.500 IN	LENGTH: 144.500 IN	

Certified Specifications

AMS 4078/RevF
 ASTM B 209/Rev04
 BSS 7055/RevA
 EAC MS1011/RevA
 MMS 159/RevN

AMS-QQ-A-250/12
 ASTM B 594/Rev02
 CSTI 006/RevB
 GSS16100/RevG
 PS 21211/RevJ

AMS-STD-2154
 BAC 5439/RevH
 DPS 4.713/RevN/AmdAF
 MIL-STD-2154

Test Code: 4297

Test Results

Lot: 347756A9 Cast 884

Drop 71

Ingot 2

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.4 : 74.0 (506 : 510)	82.0 : 82.3 (427 : 430)	11.2 : 11.4

Conductivity %IACS :	39.5 Min	40.1 Max
(MS/M) :	22.9 Min	23.3 Max

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.11	0.24	1.54	0.05	2.50	0.20	5.68	0.03	0.01	0.01	TOT 0.01

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.20	0.00	2.10	0.18	5.10	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.00	0.30	2.90	0.28	6.10	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

CASTLE METALS FP

DATE REC'D 4.18.06 IAC 6857

APPROVED BY: [Signature]

**KAISER
ALUMINUM**

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4064387

TEST NOTES

Metal represented by this test report was immersion
ultrasonically tested from one side and meets the Class A
and Class B requirements of all specifications referenced
on this test report.

CERTIFICATION

KAISER ALUMINUM & CHEMICAL CORPORATION (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM & CHEMICAL CORPORATION LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

03-20-06 08:42 FROM-

T-014 P002/008 F-019

**KAISER
ALUMINUM**Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586**CERTIFIED TEST REPORT**Serial Number
4062402

Lot: 358365A5 Cast 877 Drop 58 Ingot 1

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.4 : 74.3 (506 : 512)	62.8 : 63.6 (433 : 439)	10.8 : 11.8

Conductivity %IACS :	39.8 Min	40.3 Max
(MS/M) :	23.1 Min	23.4 Max

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.11	0.25	1.51	0.05	2.48	0.19	5.57	0.03	0.01	0.01	TOT 0.04

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.20	0.00	2.10	0.18	5.10	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.00	0.30	2.90	0.28	6.10	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was immersion
ultrasonically tested from one side and meets the Class A
and Class B requirements of all specifications referenced
on this test report.

CERTIFICATION

KAISER ALUMINUM & CHEMICAL CORPORATION (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM & CHEMICAL CORPORATION LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poy

03-20-'06 08:42 FROM-

T-014 P001/008 F-019

SHIP TO:

A M CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4062402

SOLD TO:

AM CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

CUSTOMER PO NUMBER: 01-81950		WORK PACKAGE:	CUSTOMER PART NUMBER: 8857		SHIP UNLOAD ID: 100622/17	GOVT CONTRACT NUMBER: A97075-80
KAISER ORDER NO: 1032384	LINE ITEM: 1	SHIP DATE: 16-MAR-2006	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	
WEIGHT SHIPPED: 7078 LB	QUANTITY: 5 PCS EST.	B/L NUMBER: 207775	GAUGE: 2.0000 IN	WIDTH: 48.500 IN	LENGTH: 144.500 IN	

Certified Specifications

AMS 4078/RevF
ASTM B 209/Rev04
BSS 7055/RevA
EAC MS1011/RevA
MMS 159/RevN

AMS-QQ-A-250/12
ASTM B 594/Rev02
CSTI 006/RevB
G8816100/RevG
PS 21211/RevJ

AMS-STD-2154
BAC 5439/RevH
DPS 4.713/RevN/AmdAF
MIL-STD-2154

Test Code: 4297

Test Results

Lot: 356885A4 Cast 881

Drop 22

Ingot 2

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %						
	T7351	LT / 2 (Min;Max)	74.1 : 74.4 (511 : 513)	63.7 : 63.8 (439 : 440)	11.0 : 11.7						
Conductivity %IACS :			40.0 Min	40.4 Max							
(MS/M) :			23.2 Min	23.4 Max							
Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.10	0.23	1.42	0.05	2.50	0.19	5.66	0.02	0.01	0.01	TOT 0.01

CASTLE METALS FP
DATE REC'D 3.20.06 AC 6857
APPROVED BY: *[Signature]*